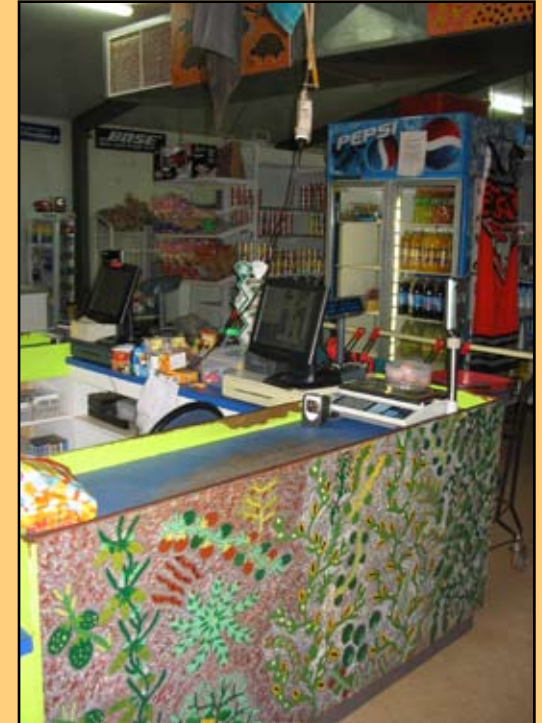




## Angka Akatyerr-akert:

# A Desert raisin report

Alyawarr speakers from Ampilatwatja,  
and Fiona Walsh and Josie Douglas



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## Background

The knowledge of Desert raisin (*Akatyerr*) recorded here is known to Alyawarr, Anmatyerr, Warlpiri, Pitjantjatjara and other people who collect *Akatyerr* (also called *Katyerr* in Anmatyerr, *Yakajirri* in Warlpiri, *Kampurarpa* in Pitjantjatjara and other dialects). The copyright of this knowledge is communal. There are also certain traditional owners who have special rights and responsibilities to this species. Parts of this knowledge and practice have been recorded elsewhere (e.g. Turner 1994, Latz 1995, Laramba Women and Green 2003).

This report is for educational and research purposes only. The report and its contents are not intended for commercial use including in tourism materials, native food developments or publications. Such uses may breach the customary laws of Alyawarr people, and may also breach the Commonwealth's Copyright Act 1968 and the Copyright Amendment (Moral Rights) Act 2000. Use for commercial purposes requires separate negotiations with people who are custodians of plants, and with their representative agencies. Refer to protocols developed by Merne Altyerr-ipenhe Reference group (in prep.) and in Holcombe, Janke and Davis (2009).

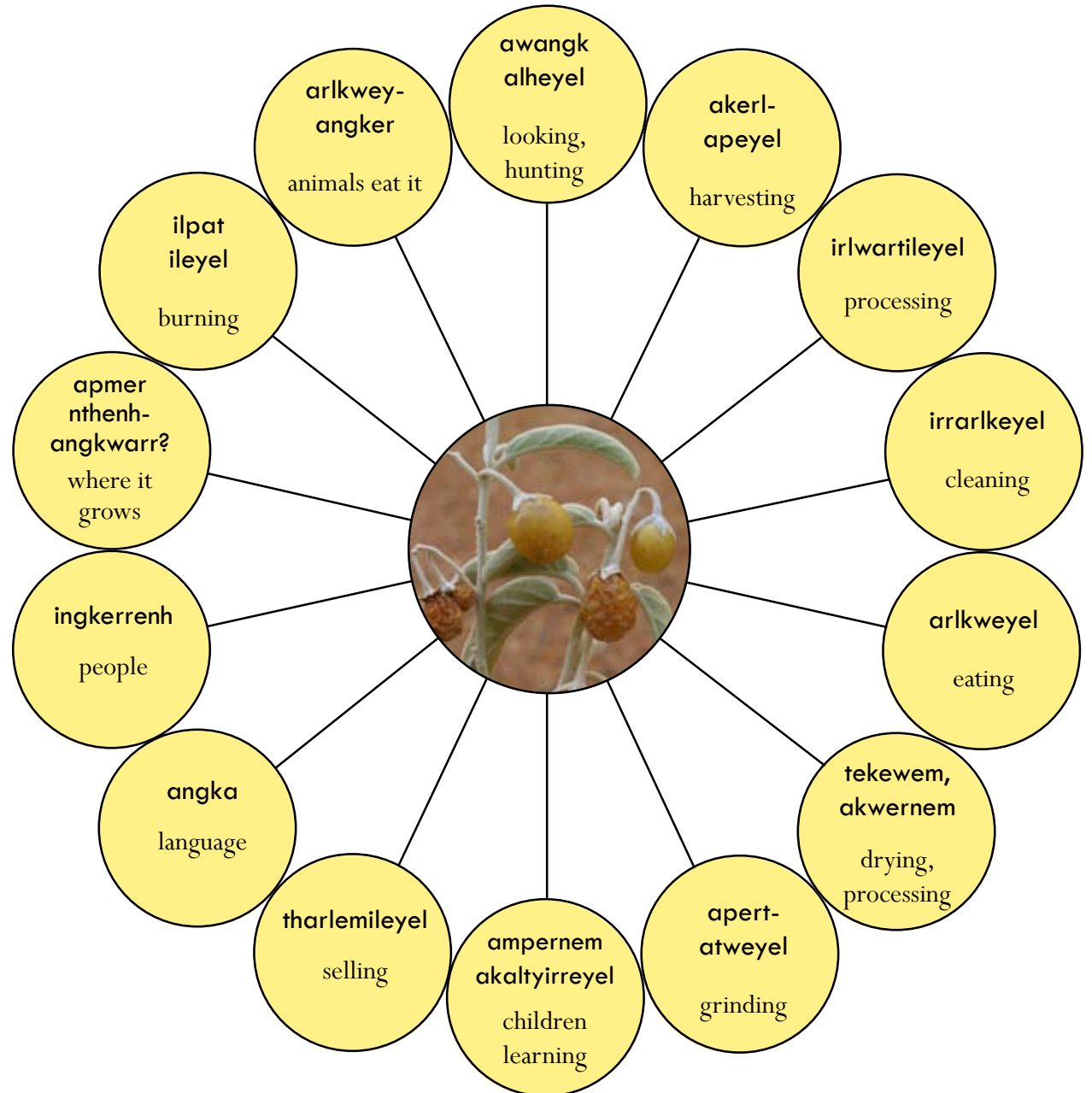


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Diagram showing contents of this report in relation to Desert raisin.  
This is extracted from the diagram on page 50.



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## Purposes of this report

The main reasons we made this report are to:

- 1) Record some skills and knowledge of Alyawarr people
- 2) Help keep traditional knowledge alive for younger Alyawarr people
- 3) Give a report to the Alyawarr women who generously shared their time and expertise in this research.

This report is important. It has Alyawarr text and English text. People at Ampilatwatja speak Alyawarr and other Aboriginal languages as their first language. There are very few reports or books in Alyawarr, so this adds to Alyawarr resources. It is a language resource that can be used in schools and at home.

Older Alyawarr people, like many Aboriginal people in central Australia, are worried that younger people have fewer chances to learn specialised traditional knowledge. This knowledge is vital to cultural and personal identity. They have asked that this knowledge be recorded.

This report complements other Desert Knowledge CRC research publications on bush foods (see end references).

Desert raisin is one of the most valuable plants in desert Australia. Aboriginal people hold a lot of specialised knowledge about where and when plants grow, how to manage them, and what animals eat the plants. This report records some of the public knowledge about Desert raisin. They know about the *Altyerr*, ancestral and human stories of the plants; some of this is undisclosed knowledge. The fruit of this plant and different seed species are collected and sold by many people, including those along the Sandover River and Highway (north-east of Alice Springs). In Alyawarr, there are special words for different plants, their growth stages, parts and preparation that either don't have separate terms in English or are hard to translate.

This Alyawarr information is also important because there are non-Aboriginal people who want to learn about bush foods. Many of them do not know where bush foods come from, who collects them and how they are harvested. Bush food products can now be bought in supermarkets, and restaurants in Australia, America, Japan and other countries. More people want to buy bush foods. Demand for them is growing very quickly. Harvesters and senior Aboriginal people want their knowledge and skills to be recognised, respected and supported.



Left: Four generations of the Holmes family take part in harvesting *Ilkert* (Whipstick wattle).

Right: Researcher Fiona Walsh shows Ampilatwatja school children different products with bush foods in them.



Left: Clinic School with *Akatyerr* growing around it. Some bush food plants grow close to schools and can be used in lessons at school.

Right: Ampilatwatja school.



Elders want Alyawarr children to be strong in Alyawarr language and culture. This includes learning about bush foods and knowing about country.



Photo by David Albrecht, Alice Springs Herbarium

## How this report was made

This report is based on trips by Alyawarr people to collect Desert raisin, seeds and other bush foods. These trips were from 2006 to 2008 and were with Edie Holmes, Jilly Holmes, Angelina Luck, Eileen Bonney, Denise Bonney, Polly Mills, Joyrene Holmes, Evan, Kanisha and Garrick Teece.

There are some quotes from Banjo Morton, Alby Bailey, Casey Holmes and Frank Holmes recorded by David Moore for this research and also the Alyawarr Picture Dictionary.

Some photos from work with Lucky Morton and others from Urapuntja Clinic, Arlparre and Arnkawenyerr have been used too. We have included quotes from Anmatyerr woman, Clarrie Long of Ti Tree because she adds details that were known to Alyawarr people but have yet to be recorded.

Some of the words in this report are records of what people talked about on the trips and others are about things we saw. The report has been set up to follow the steps taken to manage, harvest and prepare Desert raisin (*Akatyerr*). There is some information about seeds (*ntang*) because people also collect and sell seeds too.





Left: Women from Ampilatwatja and Irrwelty on the road between Irrwelty and Red Gum store talking with researchers.  
Middle: Edie Holmes records a story about burning and Desert raisin while David Moore, Jilly Holmes and Kanisha listen.  
Right: Fiona Walsh recording Angelina Luck, Joyrene Holmes, Edie Holmes, Kanisha and Evan grinding up *Akatyerr*.

Right: Angelina Luck reviews video footage of her talking about *Akatyerr* with Edie, Josie and Caroline.

Far right: Angelina, Joyrene and Jilly look at an earlier version of this report.



---

## Ingkerrenh

Fiona-atherr Josie atherr apetyek, *town*-they  
Alethepereng-they ratherrap ayenh ikngwenh,  
Akatyerr anwantherr akerl-alpetyek, Edie-rnem  
anwenantherr atnwenhek, akngek anwenantherr  
mwetekel, kel anwantherr akenh, Akatyerr aketyek  
anwantherr alhek. Akenh-anem anwantherr kwart-then  
*mixup* akenh, alhethen-antey. *How much* anwantherr  
aketyek rernem arenh, alakenh arenh anwantherr  
“Nthekwern rernem ineyel Akatyerran wenh?”  
Nthwekern weth-ilkwer inetyek angetherr weth-ilkwer  
aretyek atnwenhek anwenantherr. Kel anwantherr  
showemilenh, yanhey akeynenh-anem areynenh-anem.  
“Alakenh-anem akeyneyel wenh”. (Eileen Bonney)

Denise-rnem anenantherr amenheng-antey  
akngewan. (Edie Holmes)

Fiona and Josie came from town, they took me out to pick  
Desert raisins, Edie mob went as well and they took us and  
we took the Desert raisins. We picked yellow and brown  
Desert raisins, they were mixed. They saw how many we  
pick: “How do they get Desert raisins?” They witnessed us  
picking Desert raisins like that. We showed them, we picked  
the Desert raisins and they watched us, “That’s how to pick  
Desert raisins”. (Eileen Bonney)

Denise was going along too, with her mum.  
(Edie Holmes)

## People involved



Angelina Luck



Polly Mills



Jilly Holmes



Edie Kemarre Holmes



Joyrene Holmes and  
Kanisha Teece

Eileen Bonney



Denise Bonney  
and Michael



Lily Morton



Banjo Morton



David Moore



Josie Douglas



Fiona Walsh

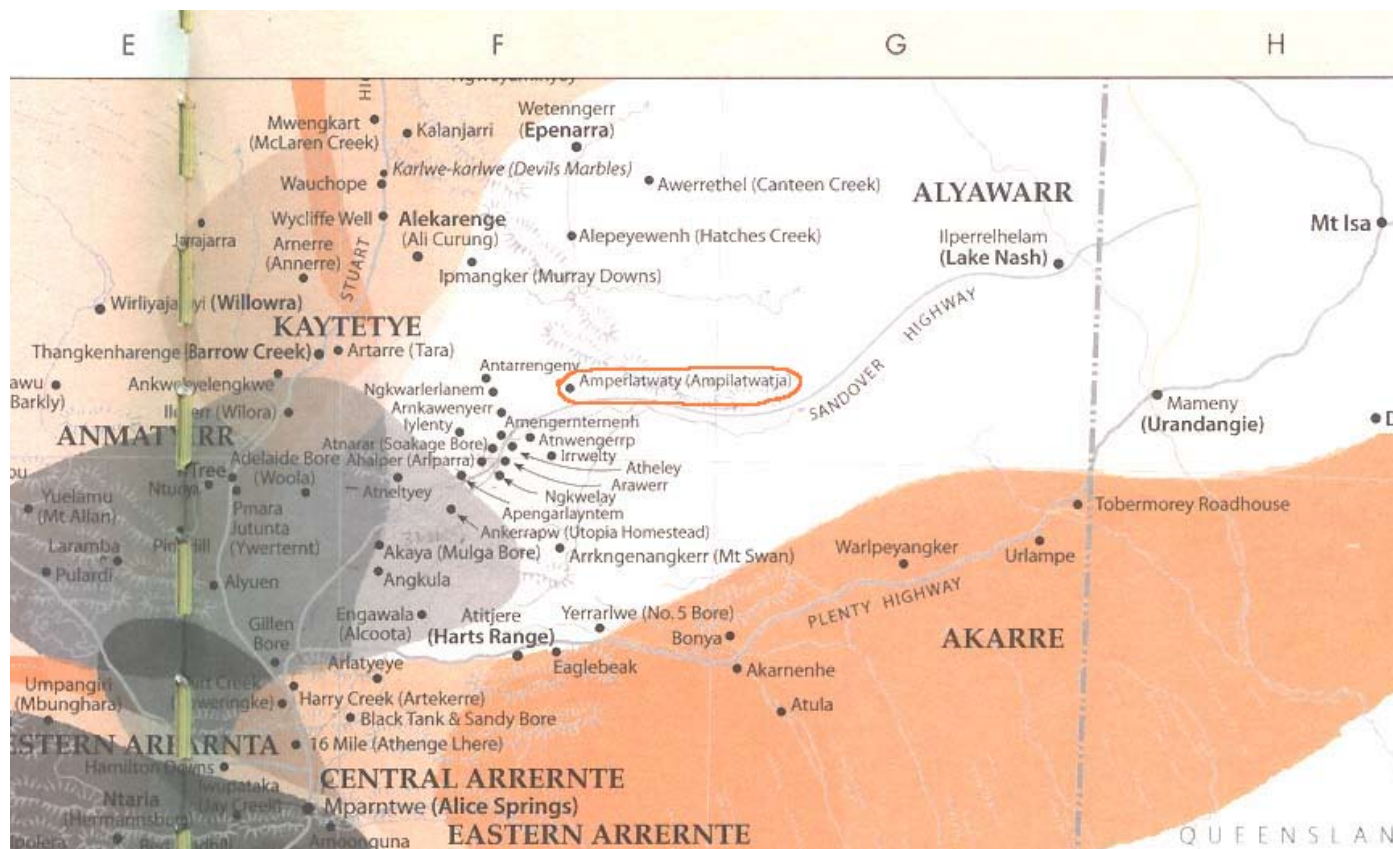


Photo by Ros Vaughan, Ampilatwatja Health Service



Photo by Gary Marshall, Ampilatwatja Health Service

## Lands and communities where Alyawarr people live



The Sandover region showing Ampilatwatja, a settlement with 300 people on a land excision. Other Alyawarr settlements are on Alyawarra and Angangapa Aboriginal Land Trusts.

(Map from Hoogenraad and Thornley 2003 page 7).

---

## Country, rain and fire

### **Apmer nthenh-angkarr akngerr ntwek wenh?**

Akatyerran akem weth-ilkwer *roadside-el* apek ntwek akngerr apek arem, akem *roadside-itwek*. Kel pwety-ampeny-itwek akem ilpat-itwekarl. Alep Akatyerr akngerr renh iterl-areyel “Apmer nthenh-angkarr akngerr ntwek wenh” wethy akeyel renhan. Ikwer-warlap alheman. Akatyerr-angkyarr-warley. Akem arripemarl pwetyekan renh. (Edie Holmes)

Antywer renh ilpatirrentyelantap ilpat renh ywareman, alheman ikwer. Akatyerran akngerrarl anem ilpat-itwekan. Amern-then-anteyap akngerrirreman, ilpat-ampeny arem. Ikwer-itwek akngerr inngan inem. Arlta atherrel apekarl inem yanhey. Pwelap inem. Arrangkwarl kel anyent inerl-aynem, ilpatel mwerr. Akatyerrarl akngerr ileyel ilpatelantarl. (Eileen Bonney)

### **Where are a lot of Desert raisins growing?**

We pick Desert raisins by the roadside if we see a lot growing there. When we are out bush we harvest them in the burned ground. When we know that there are a lot of Desert raisins there, “Where are there a lot of Desert raisins growing?” that is where we pick them. That is where we go, to the places where they are abundant, where there is a good patch. We harvest them at that bush location. (Edie Holmes)

We search for places where the grass had been burned and we go there. Many plants live on the burned ground. Bush tucker grows on the burned ground and we look around the burned ground. There might really be a lot of bush tucker there. We might be collecting there for a couple of days, until we have collected enough. If there isn't so much it might be one day. Desert raisins increase on the burned ground. (Eileen Bonney)



A small patch of *Akatyerr* on burnt ground between Irrultja and Red Gum store.



*Akatyerr* grows by the roadside north of Red Gum store where the grader has broken the ground.

---

## **Awankan rernem amern Akatyerrew ilpatilenh**

Awankan rernem ilpatilenh. Amern Akatyerrew ilpatilenh.  
Antywenpan arenhewarl rernem ilpatilenharl. Ingwer-ingwer  
Akatyerr lyapaynteyew. Kwatyarl apetyenhel lyapelhilenharl  
Akatyerr rap ilpatelan anenh arnkengeny inngey. Renhap  
inew-inenh Akatyerrey. Arnkengeny inngarl ilpatelan anem.  
Alakenh-anyem ilpatelan aneyel Akatyerr, antywenpelan  
arrangkwarl. Renhanap ilpat-warlant alheyel an Akatyerr  
arnkengeny anap anantherr ilpat-itwewarl akey-alhem. Aleyan  
ra aynteyel-anteyarl. (Eddie Holmes)

Ilpatilenhapan renh kwaty-weny-anteyarl, arrangkwarl-anteyarl.  
Kwaty-anem ingwer-ingeran rntwey-alhenh ilpatelan  
rntwey-alhenh Akatyerranap lyapenh anamerl-anteyarl.  
Arnkengenyilenhenh. Amern-then kwat-then anenhenh.  
Alhethen-anem. Alakenh-anyem ilpatilenh apmelerr-antey  
anem. Akatyerr arnkengeny innga.  
(Eddie Holmes)

## **Long ago they would burn for Desert raisins**

Long ago they used to burn the country. They would burn  
it for Desert raisins. They burned grass when it was too  
thick and overgrown so that later the Desert raisins would  
grow at that place. After the rain came and grew up the  
plants there would be a lot growing. We would gather up the  
Desert raisins. There would be a huge number on the burned  
ground. There are a lot of Desert raisins growing on burned  
ground, but not many on the overgrown ground. We go to  
the burned ground and we pick a lot of Desert raisins there.  
They are there now, at that place. (Eddie Holmes)

They would burn the ground before rain. Then later on it  
would rain and grow the Desert raisins up really quickly.  
They would increase. There would be edible ripe ones and  
the unripe ones and the dried ones as well. That's how they  
would typically burn the ground and get a lot of Desert  
raisins growing. (Eddie Holmes)



---

Awank-akerr ilpatilenh mwerrantarey? ilkwantarey  
ilpatileyaw! Apmelerr anewantherraw. Akerew.  
Arlewatyerrew. Amern Akatyerrew. Amern anatyew-  
anem. Rap anaty lyapenh ntharl-anem ra aylpenh  
ilpatelan ra aylpenh. Akatyerr arnkengeny arrpemarl  
anenh an arlewatyerrew atwenh ilpat-itwewan. Alakenh  
awankan ilpatileyartingkerr. Arwerl amern pwety-  
areny anenhenh arnkengeny. (Eddie Holmes)

## Apangwilenh

Arrwekeleny-rnem kwatyek iterrenh. Kwatyarlap  
rernem akngerrilenh. Artwa ampwernem alhenh  
aknganenty-warl. (Banjo Morton)



Rain clouds  
forming over  
Ampilatwatja

Long ago they would all burn the ground and it was  
accepted. They would all do it – it was our custom. We  
would burn the ground for game and for Desert raisins and  
for yams. The bush potato tubers would grow on the burnt  
ground. There would be a lot of Desert raisins and a lot of  
goannas. That is how we would always burn the country. A lot  
of bush tucker would grow there then. (Eddie Holmes)

## Making rain

The old people thought about rain. They made rain.

They would go to a sacred site and make rain. They would  
sing the correct songs. It was the Kemarr and Pwerl skin  
group who would sing those songs. The old men would go  
to a sacred site. It was the initiated men and they would take  
younger ‘middle-aged’ men and teach them.

The main sites were around Elkedra. After making rain the  
trees and grass would grow. (Banjo Morton)

---

## Ilpatiley-angenh arrangkw

Awankan arrtyenh ampwernemel ilpatilenh alhewer-tangkwel. Rlengk-rlengk arrangkw-anemarl.

Antywenpel-anem anewaneyel. Nthwekwern rwa arrtyey-angenh ilpatiley-angenh arrangkw? Rlwamp-wety anewaneyel. Atnwenth pwelek ikwer-rnem-wenh ampewerr. Arrarrethirreyelant rlwampan antywer arrtyewerr ilteyelant-anem. Arwarl awankant arrtyenh. Aleyan arrangkw-anem artnelant-anem alherleweyel.

Awankan alherlewenh nhakan [station]-angkwarran, aker aherrant atwenh an arlewatyerrant. Aker aherran akngey-alpenh apmer-warlant. Atherr apek irrpety apek, apmer-itwelantap ampey-alpenharl. Nthwekern arrtyey-angenh nhakarl [station]-angkwarran rlwamp-wety antywer arrtyewerran ilpatirrenhewerr pwelek-angketyarrew ... akngey-alpenh apmerant-warl ampey-alpenhan.

(Edie Holmes)

## Nowadays we don't burn

Long ago the old people used to burn the grass quite openly. Nowadays we can't. Everything is overgrown. Why don't they like burning? It's because of the white people. The fires might burn up their cattle. They get angry and scold people. Long ago they used to burn grass freely. Not now, we just walk through thick bush. Long ago we used to go through [station], to places where we got kangaroo and goannas. We would just take the kangaroo meat back to camp. If we had two or three we would cook them in camp. We can't burn around [station] because the white people don't want the grass to get burned – the grass for the cattle. We only cook the (meat) back at camp. (Edie Holmes)



Above: Jilly Holmes searches for Desert raisin in old spinifex that hasn't been burnt for a while.

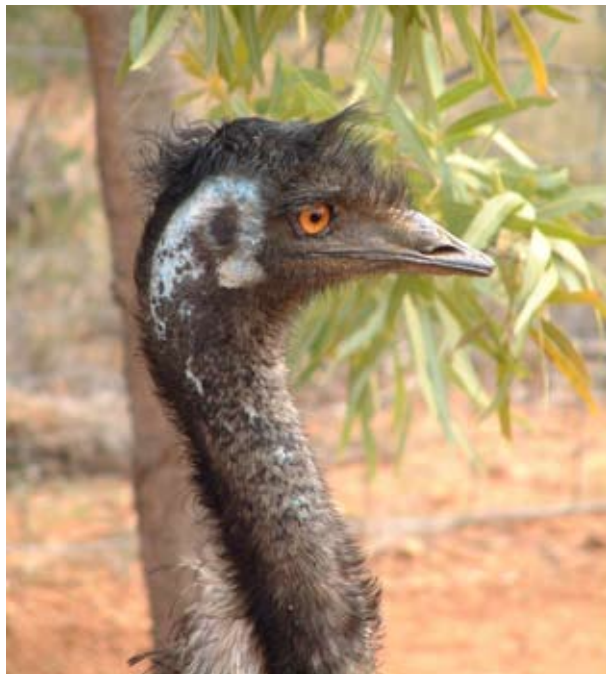
Right: Recently burnt sandplain on the Alyawarra Land Trust where consequently bush foods regenerate. A Desert raisin plant is in the foreground.



## Akatyerr arlkwey-angker ingkerr

Arwengerrpel Akatyerr arlkweyel, intwek-anem, intelty-anem.

Akatyerr arlkweyel ankerrel, Akatyerr, Arrarntenh arlkweyel, intekw, anwekety, angey-angey arlkweyel ankerrel, amernan ikwerenh.



Photos by Michael Barritt and Karen May

## Animals that eat Desert raisins

The bush turkey eats Desert raisins and other fruits and grasshoppers.

(Alyawarr Picture Dictionary, translation modified)

The emu eats Desert raisin, Bush plums, Conkerberries, and other plants. These are its foods.

(Alyawarr Dictionary 1992, translation modified)

In turn, emu and turkey are important meat for Alyawarr people.



Arwengerrp akatyerr-then, • The bush turkey eats desert raisins  
 intekw-then arlkweyel. and fruits.

Page from Alywarr Picture Dictionary coloured by Evan Teece



Photo by Michael Barritt and Karen May

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## Picking and processing Desert raisins

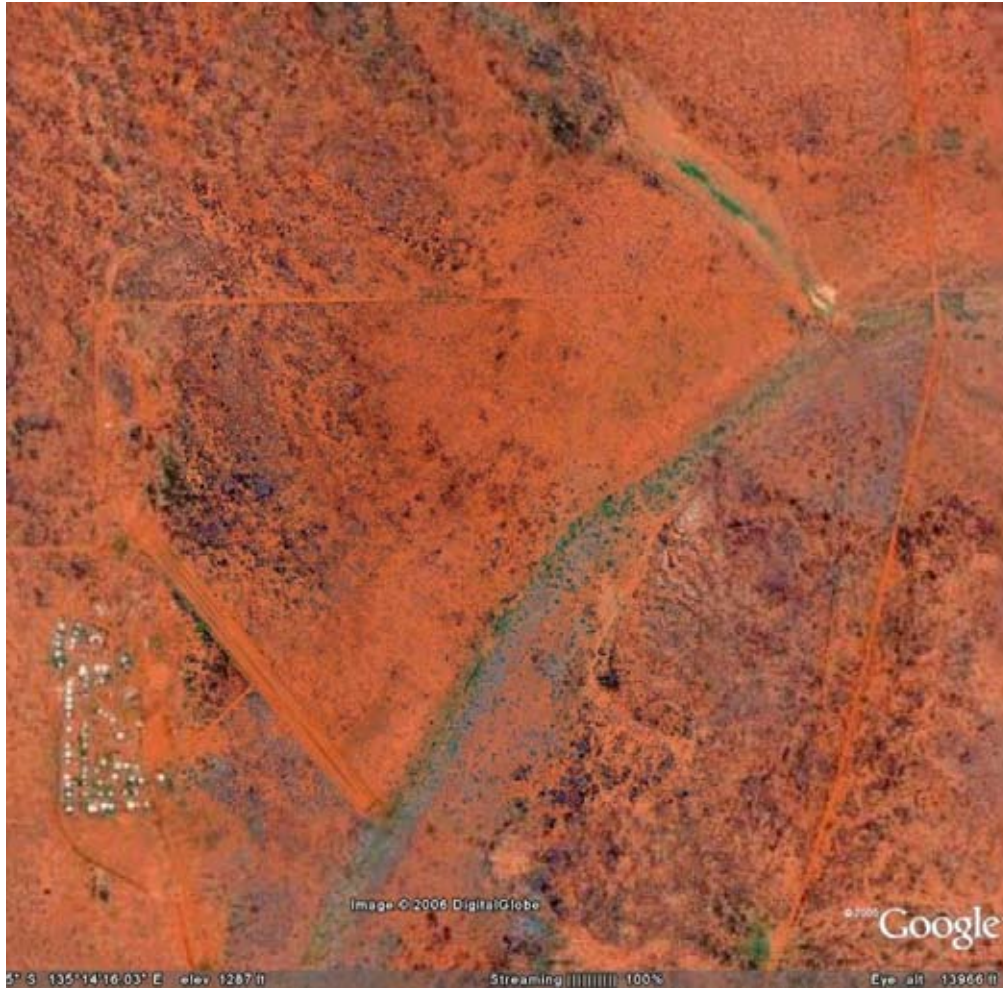
### Apmwerrkel anantherr alhew Akatyerrew

Apmwerrkel anantherr alhew Akatyerrew anantherr alhew apmwerrkel apmer Aherrarl-arkew-warl. Akatyerr irrpety anantherr arey-alhew ilpat-penh-itwew. Akwerlp-itwewanap rernem aneyelan Akatyerr-rnemey. Apmer Aherrarl-arkew-itwewey. Apmwerrkel. Irrpetyantarlal anantherr inenh Akatyerr-rnem. Kwart-weny, alhant. Alherneman. Arrer-antey anantherr alhew. Arleng-weny. (Joyrene Holmes)

### Yesterday we went looking for Desert raisins

Yesterday we went [looking] for Desert raisins to Aherrarl-arkew. We found a few Desert raisins on ground which had earlier been burned. Desert raisins grow on the sandy ground at Aherrarl-arkew. We just got a few when we went out yesterday. [There has been no rain] so they were the dried out ones. We just went a little way, not far. (Joyrene Holmes)





Above: Satellite photo from Google Earth 2006 of Ampilatwatja and surrounding areas where Desert raisin was collected.

Right: Desert raisin patch and harvesting by Joyrene, Kanisha, Edie and Jilly.



---

## Akerl-apenh anantherr

Areyneh-anem yanhey rlwanenh arwerl-penh akeyneyel, arrerneyneyel pwelapirreyneyel *mixup-antey*. Kel rernemap pwelapirrenty ineynenh. (Eileen Bonney)

Kel amern anantherr arlkwek. Kel ingwerek-anem alperlewem, akayntetyek. Akenhey-alpek anyent-ngerantey. Anyent-inger-antey akenhey-alpek, Apmer-warlanem apey-alpeyel. Kel rernem arek-anem. Alakenhayem akeyelan *hard way* akeyelan (Eileen Bonney)

Akerl-apenh anantherreeey, amentew-amentew arwerl arrpanenh-itwew. Ratherran arerl-apenh angetherrantey “Alakenhaym inngan akerl-apeyel Akatyerran wenh!” (Eileen Bonney)

## Picking as we went along

They saw us picking them out from the plant and filling them up, a mix of both types. They picked them till there was a whole lot. (Eileen Bonney)

We ate tucker. OK. We picked one lot. We picked another lot and then came back to camp. They saw it. That is how they pick them – the hard way. (Eileen Bonney)

We were picking as we went along, each person picking in their own place. They saw at first hand, “Ah, that’s how they harvest Desert raisins!” (Eileen Bonney)





Top: Eileen sits to pick Desert raisin fruit. She uses both hands to collect the fruit.

Bottom: Jilly, Denise and Michael, and Kanisha pick fruit. They stand up to pick when there are fewer fruit on each bush.



---

## **Alakenh-anyem rernem akalthenhanem, irlwartilenh**

Nhayman atha ilem angka atharl arenh awank, mam atyenhel atha arenh Akatyerrarl akenh. Wal akenh, irrka angernenh ra, Akatyerr-rnem-anem ra atantheynenh, intert-antey, arrerneynenh irrkewarl. Ampweretyenh irrkewarl anyent-warl antey. Ikwer-theyan, rerneman Akatyerr ingkerr pullapirrew rernem thing-anem ingkety-anem rtenh ra. Ingkety-anem rtenh, atnemel arrernelhemel. Rap ingketyelan angwenhilenh, internem ra akalthenh ra irrkitwew-antey. Ikwer-theyan interneman akelhewan Akatyerrant-anem aynteyelpew. Yanhan arlengarr-warlanem arrernenh aympernenh-anem alakenh-anem akalthenh-anem irlwartilenh. Anthelk-rneman ra iweyneharl. Alakenh-anyem-then rernem awankan ilenh. Atha arenh mam atyenhelarl inenh Akatyerr alakenhanyemarl. (Edie Holmes)

## **Picking and processing fruit in the early days**

I will tell this story about long ago when I saw my Mum harvesting Desert raisins. Well, she used to pick them and then dig a hole and then poke at the fruit which still had stalks attached and then put [the fruit] all together into one hole. After she had filled up the hole she would stand, leaning on her digging stick. Using her feet, she would break off the fruit from their stalks. After the stalks had broken off, there would only be fruit in the hole. Then she would separate the fruit in a coolamon and clean the fruit. Then she would throw away the trash. That is what they used to do in the early days. I saw my mother doing that process. (Edie Holmes)

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A woman threshing seed with her feet. (Devitt 1988 p. 134)

This method is similar to what Edie Holmes describes in her story about her mother cleaning Desert raisin fruit.



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## Rerrk-warl alperlewem

*Fullupirrentyan anantherr rerrk-warlarl alperlewew, arey-alpew alakenh kwart ament-warl arrpemarlarrrernenh alha ament arrpemarlarrrernenh. (Edie Holmes)*

*Rerrk-warl anantherr alpenh angayakwirrenty, “Arey anwantherr ingwerentyek-anem wenh!” Areyirrek-anem pwelapirrek. Aney-alpek tey-anem arrtyey-alpek. (Eileen Bonney)*

*Arleng-alenty rwenp. Alhengkerrek-atwety akeyneyel. Alperlewem lywenty-warl-anem. Lwentyel-anem anerlanetyek. Rlwanerl-aney. Arlkwey-alpek anwantherr. Rten anwantherr arlkwenh. (Eileen Bonney)*

## Going to our dinner camp

*After picking a lot of them, we went to the dinner camp and it was there that we had a look and separated the unripe ones and the overripe ones. (Edie Holmes)*

*When we got hungry we would go to a dinner camp, “Let’s get more!” The containers would be full. We would stay there a while and boil the tea. (Eileen Bonney)*

*We go in the heat. We pick until we are tired. Then we go back to the shade. We stay in the shade. We pick out Desert raisins. We ate some. We ate dinner. (Eileen Bonney)*



Above: Women ready to sort and clean *Akatyerr* fruit.

Left: Tea break after sorting fruit.

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## Akatyerr akngakem, irrarlkem

Tek-arrernenh-anem. *Cleanemilenh-anem* renhey ...  
ament-anem kwart arrernenh. Amentan alha. Alhan  
arrernenh. Alakenh-anyem anwantherr arrerneyelan.  
llenhan renh-rnem. (Eileen Bonney)

Alakenh-anyem anwantherr akalkeyelan, akngakeyel  
anwantherr, ahernelan anwantherr irrarlkem.  
(Edie Holmes)

Lywenty-warl-anem akngeynek. Lywentyel anwantherr  
arek *Cleanemilenh* anwantherr. Rlwanenh. Kwart-  
rnem ament arrpemarl arrernenh. Ahernel iparem  
irrarlkemel. Aylan akeynenh. Rernem itnewerrenh  
arwantey akerl-anentyek-athen, rernem arwantey  
thwenerl-anentyek-athen *easy-ek-athen*. (Eileen  
Bonney)

## Separating and cleaning Desert raisins

Then we would put them out to dry. We would clean them,  
placing the unripe ones and the ripe ones separately. That is  
how we arrange them. That's what we did with them. (Eileen  
Bonney)

This is how we separate them out and clean them with sand.  
(Edie Holmes)

We took them back to the shade. We had a look at them  
in the shade, picking out some, putting the unripe ones  
separately. We cleaned them with earth. They thought that it  
was easy, they just send people out as though it's an easy job.  
(Eileen Bonney)



Top left: Fruit are sorted and separated into piles of green or unripe, ripe yellow and brown, dry fruit.



Top middle: The stalks and bad fruit are thrown away.



Top right: Fruit is rubbed on canvas or in sand to remove wax, bitterness and small hairs, so people are less likely to get a headache or gut ache (stomach ache) from the fruit.

Right: Different stages of *Akatyerr* fruit: green fruit; *kwart* – ripe yellow fruit; *alha* – wrinkly, dry, brown fruit.



## Irrarlkem ahernel-anem

*Fullup-irrentyan anantherr rerrk-warlarl alperlewew, arey-alpew alakenh kwart ament-warl arrpemarl arrrerenh alha ament arrpemarl arrrerenh. Ahernelan irrarlkeynenh. Alakenh-anyem awank do-emilenh-apeny.*

Wal ratherrap arenh, “Alakenh-aymant Akatyerr rernem akaltheyel wenh!” Akwerrpel ratherran arenh anwantherarl Akatyerr akngakenh an *clean-emilenh* anantherr. (Edie Holmes)



Close-up of Desert raisin showing sticky coating and tiny hairs on the fruit.

## Cleaning with sand

When we had a large quantity, we went to the dinner camp and it was there that we had a look and separated the yellow ripe fruits from the brown, wrinkly ripe ones. Then we were cleaning them with sand, in the way that was done traditionally. Those two saw it, “Ah, that’s how they harvest Desert raisins!” They didn’t know about it before that. We separated out the Desert raisins and cleaned them.

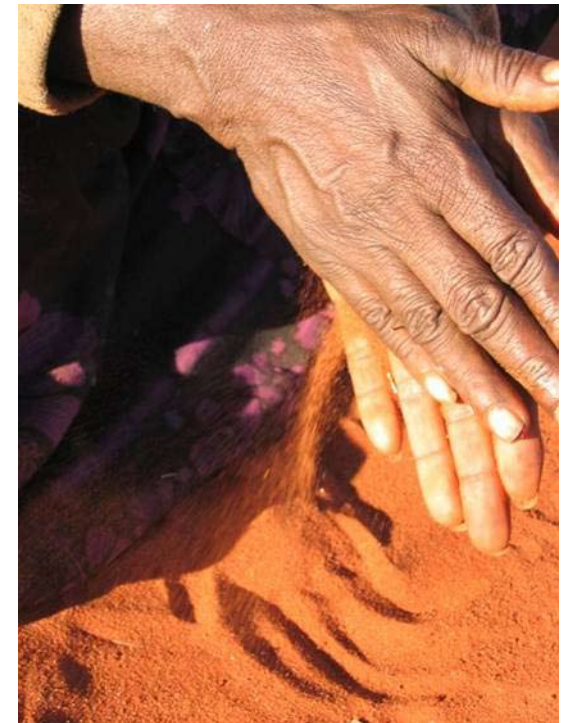
(Edie Holmes)

*Akatyerr* has the sticky stuff and little hairs. Rubbing on the ground cleans them off. The sticky stuff gives you a headache. The hairs on it give you a headache. You feel dizzy. If you clean it you can eat it and that is fine. You get a gut’s ache but after you clean it that is fine. (Clarrie Long Kemarre, translated from Anmatyerr)





Edie Holmes uses sand to rub and clean the fruit. This removes the waxy coating and small hairs from the fruit. These can give you a stomach ache or headache when not cleaned off.



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## **Amern anantherr arlkwem**

Kel amern anantherr arlkwek.

Arkwey-alpek anwantherr. Rten anwantherr arlkwenh.

(Eileen Bonney)

## **Anantherr apey-alpew-anem Akatyerr-rnemenpan**

Atwerrpantap anwantherr ipmelherlelpekan. Kel rernem alakenhey arlta anyent-penhey. Alakenh-anyem arlkarewelhenh-anem wenh. Alakenh-anyem arek. Kel Edie-anem ilelhey. (Eileen Bonney)

lkwer-penh anantherr apey-alpew-anem Akatyerr-rnemenpan. (Edie Holmes)

## **We eat the fruit**

We would eat that tucker.

We ate some. We ate dinner. (Eileen Bonney)

## **We came home with our Desert raisins**

In the evening we knocked off. It was like that after one day. We went home. “That is how they wear themselves out doing that work.” That is what they saw. OK, now Edie can talk. (Eileen Bonney)

After that we came back with our Desert raisins. (Edie Holmes)

Clockwise from top left:

- Children from Arnkawenyerr at Clinic school with *Akatyerr*
- Denise Bonney eats some *Akatyerr*
- A container of sorted *Akatyerr* fruit ready to take back home
- Joyrene gives fruit to Kanisha
- Polly Mills, Jilly Holmes, Denise, Michael and Eileen Bonney (hidden), Josie Douglas and Edie Holmes with *Akatyerr* they picked.



## Akatyerr tekewem, akwernem paket-wark

*Yellowone-rnem alerlarl tekewey-alpem, brownone irreyntyekan. Ingwepenhan tekeweynem, kel atwerrpan arengkel arlkwekerr-then arrerneynem ampel mess mpwarerl-anekerr. Akwerneynem paket-warl-anem angkeparl. Apmer-warl atha kwart arrernem ament arrpemarl. Ampel arnepanekerr mwanty-anteyarl. (Eileen Bonney)*

## Drying and storing Desert raisins

We go back and put the yellow ones out to dry, until they get brown. We put them out in the morning, and in the evening we put them away in case the dogs eat them or the kids scatter them everywhere. We put them back in a drum. I put the Desert raisins away in a place where the kids can't touch them. (Eileen Bonney)



Right: Polly Mills (blue beanie), at Welere, east of Irrweltye with *Akatyerr* out to dry.

Photo by Gary Marshall, Ampilatwatja Health Service



Above: Young woman next to bowl of Desert raisin. The bowl is stored out of reach of children and dogs.

Left: Containers of *Akatyerr* ready to sort and clean.

## Akatyerr apert-atwem ikelh mpwareyew



Akatyerr amern kwart-tangkwel renh akemel renh apert-atwemel apalyarrilem arlkweyew.

lkelh-anem arlkweyel. Amern alhanem renh akemel apwert alyerel apert atwemel ikelh mpwaremel arlkweyew. (Alby Bailey, Casey Holmes and Frank Holmes)

## Grinding up Desert raisin to make a seed cake

They would crush the *Akatyerr* with a stone. They would make seed cakes. Big round ones like footballs. They would line them up. They would rub them in ochre, cover them and put them in the sun. We'd put them into the sun and then onto the tree platform high up. We would make a bed out of spinifex and tie them up like eggs. We would place them on the grass. It'd be dry. It would be covered in a web, like spider web. They might keep them for a couple of years. They might go green and mouldy but the inside would be good. We did not cook the balls in the fire. (Clarrie Long Kemarre, translated from Anmatyerr)

Desert raisin starts as yellow ripe fruit and is picked and crushed up and made into a cake.

Then we eat the cake. The dried fruits are picked and crushed up with a grindstone to make a cake which will be eaten. (Alby Bailey, Casey Holmes and Frank Holmes)



Left page: A special grindstone found in a Desert raisin patch in 2008. In earlier times it would have been used mainly to grind up *Akatyerr* fruits.

Left: Angelina Luck grinds up *Akatyerr* on this grindstone.

Below left: After the fruit are ground up, water is added to make a cake out of the fruit.

Below centre: Kanisha shows a ball of the *Akatyerr* cake.

Below: Balls of Desert raisin covered in ochre and ready to store. Made by people from Yuendumu.



Photo by Christine Lennard

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## **Arrwekeleny-rnemel amern pwety-areny arlkwenh**

Arrwekelenyel-rnem arlkwerrenh waylpel-wenyankel.  
Kwementyay Cook-el arey-alhek artwa arrwekeleny-  
rnemel amern pwety-arenyarl arlkwenh. Ikelh  
mpwarenh. (Banjo Morton)

## **Ampernem akaltyirreyel**

Rernem ilkwerrem, rernem ntang akwetyem.  
Ampernem akalty-anthetyek kwerl-angkwarr, ntang  
akwetyetyek.

Arrwekeleny-rnemel akaltyilenh ingwer-rnem-anemarl.  
Ingkern-penhel-rnem iterl-aretyek arrpemarl.

Menty ipmey-angenh. Amern arrwekeleny iterl-antey-  
areyel.

(Banjo Morton)

## **Long ago we lived on bush foods**

People lived on that tucker before the coming of Europeans.

Captain Cook found that the ancestors were living on bush  
tucker. They used to make the seeds into seed cakes *ikelh*.

(Banjo Morton)

## **Children are learning**

The children are learning. They should have two-way  
schooling to teach the children about the bush plants so that  
they can collect seeds when they get older.

The old people taught the next generation. There will be  
people to take over when the older generation passes away.

They keep holding on to that knowledge, they can't leave it,  
they remember that traditional bush tucker [*Impen* – special,  
important]. They lived on those foods before flour and sugar.

(Banjo Morton)





## Akatyerr-then ntang-then tharlemileyew

Retangkwel ayernekt ntangek.

Apwert angernenty-penhek, irrka rernem artheynty.  
Ahern rernem ntwem arrpemarl artheynty-penh.

Ingwerenty arlkwententyekant, ntang akngerrarl  
akwetyem. (Banjo Morton)



## We sell Desert raisins and seeds

Rod Horner was asking for seed first and that is how we got started.

The seeds are used mainly for revegetation work. Covering up the places which have been dug up.

If people wanted to buy more seed, we would like to collect more. (Banjo Morton)

We like doing this work. We like going off with our buckets [of Desert raisins] and picking them and eating them, especially on the newly burnt country. (Clarrie Long Kemarre)



Top left: Lily Morton and Angelina Luck threshing *Ilkerte* (Whipstick wattle) to separate seeds from pods.

Top right: Cleaning up *Alhanker* (Sandhill wattle) seeds by yandying in a coolamon.

Left: The shed in which Banjo Morton and Lily Morton store the seed and fruit before sale.

Right: Cleaned *Akatyerr* and *Ntyerrm* (Dogwood) in drums ready to sell.



Photo by Genevieve O'Loughlin

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## Ntang tharlemiletyek, ingwer-anem inaynteyek

Ntyerrm atherr paket atherr. Alerrey atherr-anem.  
Ntyerrm-tangkwel iwerl-alhek. Artepwel akngey-  
alpek.

Rod Horner apetyek, payemileyek. Alakenh-  
anyem *More again* ra ilerl-alenh, arlepekant-anem.  
arlepekant-anem. Arnkwertern Maney-akert ra  
apetyek. Payemilek alakenh-anyem.

Arlepant-anem inerl-ayntem Arlepant-anem  
arnkwertern-then inayntey. (Angelina Luck)

## I sell seeds and go to get more

I got two buckets of Dogwood seed. I left them first. I got  
two of *Acacia colei*. I put them down. Then I went out for  
*Acacia tenuissima*. I brought it back.

Rod Horner came up to buy seeds. He bought this many  
[showing one hand]. He told me, “Get more again. *Arlep*  
[*Acacia victoriae* seed], *Arnkwertern* [Coolibah seed].” He comes  
here with money. He bought this many drums [showing five  
fingers].

Now I am going to get *Arlep* [*Acacia victoriae*]. Coolibah too.  
(Angelina Luck)



Top left: Angelina Luck cleans *Ilkerte* (Whipstick wattle) seed.

Top right: Angelina winnows *Ilkerte* to separate seeds from chaff.



Rod Horner packages the Desert raisin he has bought from Alyawarr people.



The Desert raisin and seeds sold from Alyawarr and other central Australian communities ends up being made into jams, sauces and other products that get sold in shops around Australia and overseas. Photo at the Alice Springs Desert park shop.

Aherrenge store is the main shop where Ampilatwatja people buy their food. There are bush food paintings in the shop. As well as getting bush foods from country, Alyawarr people would like more bush foods for sale in their shop. At times when Akatyerr jam was there it sold very quickly.





Left: Joyrene with bush medicine plant (*Eremophila goodwinii*).

Above: Anatye (Bush potatoes).

Below: Edie Holmes harvesting *Arreth*.



## Alyawarr people collect many different bush foods and medicines

Desert raisin is just one of many different bush foods and medicines that are collected by Alyawarr people. It is one of the more important ones. It is easy to collect. It grows in many places. It is good to eat. It can be sold. It has a strong story.

Other bush foods that are important to Alyawarr people and continue to be eaten include bush potato, conkleberry, bush banana, bush currant. Of the seed species, only some green seed species are eaten nowadays. Alyawarr people also collect and sell dry seed species.

Other bush medicines that are used today by Alyawarr people include *Arreth* (*Eremophila freelingii*) and Ilpengk (*Eremophila dalyana*). Other bush meats that are important to Alyawarr people include hill kangaroo, bush turkey, emu, and sand goanna. There is also sugar bag and witchetty grub.





Young person with a sand goanna.



Evan Teece with Coolibah bark to make into ashes for tobacco.



Eileen Bonney collects *Ilpengk* to make into bush medicine.

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## Glossary of Alyawarr terms used in this report

These terms are specifically related to harvesting and processing bush foods that are mentioned in this report. Some of the words are specialist terms which only relate to Desert raisins. Some of the words have a more general meaning but are used in this report in a more specific way.

**Akaltheyel** (verb) breaking off, applied to breaking off the stems

**Akatyerr** Desert raisin (*Solanum centrale*), refers to both the plant (*arwerl*) and the fruit (*amern*). There are words to describe the different ripening stages of the fruit: *kwart*, *amern*, *alha* (see separate entries)

**Akeyel** (verb) pick, harvest

**Akngakeyel**, **Akalkeyel** (verb) separate out the ripe and unripe Desert raisins

**Alerrey** *Acacia cowleana*, *A. colei*, group of wattle shrubs with edible seeds

**Alha** dried, wrinkled, brown Desert raisin

**Altyerr** Law, dreaming

**Amern** food, tucker, edible desert raisin

**Anthelk** trash, including stalks and other inedible plant parts

**Antywenp** overgrown, area of thick grass. Bush tucker is not able to grow there. These areas are usually burned

**Apalyarrileyel** (verb) making desert raisins into a cake

**Apert-atweyel** (verb) pounding with a hammer stone

**Apwert alyer** hammer stone used for pounding desert raisins. The base stone is called **ather**

**Arlep** *Acacia victoriae*, Acacia bush, kind of wattle

**Arnkengeny** many, an abundance

**Arnkwerrern** Coolibah (*Eucalyptus coolabah*) seed

**Arreth** Hill fuschia, (*Eremophila freelingii*) medicinal plant

**Arrtyeyel** (verb) burning something

**Aymperneyel** (verb) clean with a coolamon dish, yandy

**Ikelh** cake made from ground Desert raisin fruits

**Ilkert** *Acacia tenuissima* Whipstick wattle

**Ilpat** ground which has been burned recently, open area

**Ilpat-penh** means that significant regrowth has already occurred.

**Ilpatileyel** (verb) burning an area to create an open area

**Ilpengk** *Eremophila dalyana* plant with medicinal properties

**Impen** special, unique, important

**Inta** stalk of the Desert raisin

**Intert** Desert raisin fruit with a stalk still attached

**Irlwartileyel** (verb) separating 'cleaning', to make clear, separate out fruit from trash

**Irrarlkeyel, Ipareyel** (verb) cleaning fruit with sand

**Kwart** yellow firm Desert raisin fruit

**Lyapelhileyel** (transitive verb) water and people growing plants

**Ntang** edible seeds

**Ntweyel, lyapeyel** (intransitive verb) plants grow up

**Ntyerrm** seeds of the Dogwood tree (*Acacia sericophylla*) which is called **awenth**

**Rerrk** dinner camp

**Rlwaneyel** (verb) choosing and picking out ripe fruit

**Tek-arrerneyel** putting something in the sun to dry it out



## School curriculum-linked learning activities: ideas for teachers about Desert raisin

This report on *Akatyerr* (Desert Raisin) and the Alyawarr knowledge contained in it can be used for many purposes when it comes to classroom learning. Any classroom learning about bush foods needs to be done in conjunction with country-based (field) learning. Country visits are where inter-generational transfer of language and cultural knowledge occurs. Country-based learning needs to involve elders working with teachers and students in a process of two-way learning, and include teaching about cultural aspects connected to *Akatyerr* (or other bush foods being learnt about).

These ideas can be linked to the Language and Culture section of the NT Curriculum Framework. *Akatyerr* is ideal for use with the school curriculum because it is a common plant known to many children and easily found around schools, settlements, roadsides and burnt areas with red sand country. It is one of the most valuable plant species in central Australia.

### Teaching from the known to the unknown, the familiar to the unfamiliar

Because *Akatyerr* is something the students know about, and applying the principal that learning is most effective if you move students from the known to the unknown, then studying *Akatyerr* can be used to help students reflect on and learn about their own world and use this knowledge to compare and contrast it to things in the wider western world. This may encourage students to research something beyond their own context.

At the beginning of a unit of work about *Akatyerr* give students a chance to talk about what they already know, and what they want to learn. This will help them engage with the learning process. The information that comes out of this session can form the basis of a plan for the unit.

### Learning about science

The information in this report gives students an opportunity to develop scientific ways of working. Science teaches students to think about and ask questions about everyday things, to evaluate information and the methods used to generate it, to identify issues of a local and global nature, to pose and evaluate arguments, to explain and predict natural phenomena, and to read and converse more widely about things.

### Country-based learning

Some of the equipment needed for country visits includes camera, voice recorder, video camera, sketch pads and pencils, small blackboards and chalk, bags/billies for collecting, a plant press. You might also want to take paints, plasticine, glue, magnifying glasses or a hand lens, crowbar or shovel, etc.

Try to ensure that students are involved in recording the information they learned in a useful and meaningful way. This may be through making a book, painting, poster, powerpoint presentation, video, labeled photo album or song writing, etc. It is important to see every trip as an opportunity to add to literacy activities.

<b>Teaching from the known to the unknown, the familiar to the unfamiliar</b>	<p>Ask students what they already know about <i>Akatyerr</i>. Write this up. If students are little, the teacher can write these things up on a board or large wall chart. If they are older and can do it, get them to write their thoughts themselves. It is good to talk first.</p> <p>Ask elders what they think children should know about the plant. Write up some of the questions or subjects on a chart. As you go through the learning process, help them to answer the questions they have asked.</p> <p>Ask students how they think they might learn these things.</p>
<b>Learning Alyawarr and other languages through <i>Akatyerr</i></b>	<p>Use the learning about <i>Akatyerr</i> to extend students' own language knowledge. Get elders to talk to them and teach them on country. Reinforce new or 'hard' language by going over it in the classroom, labeling, describing, drawing, listing new words and meanings, etc. Use the texts in this report and other books either orally or for reading, making cloze exercises, etc.</p>
<b>Learning about English through <i>Akatyerr</i></b>	<p>Use activities like 'speed copying', retrieval charts, labeling and classifying samples, making plant profile cards, describing a process of preparing <i>akatyerr</i>, making books, maps, etc. to help develop students' English. Try to find avenues for them to explain in English to English speakers</p>
<b>Literacy through <i>Akatyerr</i></b>  This report provides potential for teaching both Alyawarr and English literacy.	<p>Use such activities as cloze activities, getting students to summarise paragraphs, Q &amp; A based on sections in the report, reading, writing in report format, etc.</p>
<b>Observation/ biology/ taxonomy</b>	<p>Walk around your school, homes or country and find different bush food plants. Collect a small branch of each. Identify which one is called <i>Akatyerr</i> in Alyawarr or another language you know. How do you know it is <i>Akatyerr</i>? How is it different from other bush food plants? Write on separate cards the names for each of these plants.</p>
<b>Observation/ recording /biology</b>	<p>Find an <i>Akatyerr</i> plant. Look at it closely. Make or draw it to show the different plant parts – stem, leaves, flowers and fruit. Say or write the Alyawarr and English names for these parts. Colour in your drawing to show the flowers. What colours are its fruits?</p> <p>see <a href="http://www.schools.nt.edu.au/tlcland">www.schools.nt.edu.au/tlcland</a> p. 52</p>

<b>Sorting/classification/ palatability</b>	Collect lots of different <i>Akatyerr</i> fruits. Sort the fruits into different types. Arrange them into groups by their order of ripeness. Match these words to the fruit types: green, hard, yellow, soft, brown, wrinkly, dry, black. Sort the fruits again into groups by order of their taste. Which types taste best? Which types taste bad? Which should you not eat?
<b>Observation/checking up/ biology/burning</b>	Find an <i>Akatyerr</i> plant. Carefully dig to follow its root system (like when digging Bush potato). Is it short or long? Does it connect one <i>Akatyerr</i> plant to another? How would you redo the drawing in <a href="http://www.schools.nt.edu.au/tlcland">www.schools.nt.edu.au/tlcland</a> at p. 52?  Ask old people (your grandmother or aunty, grandfather or uncle) about how people burnt country in the olden days (there were special rules for burning country). Why did they burn country? Why would a plant with roots like this benefit from burning?
<b>Geography/mapping</b>	Make a map of where the <i>Akatyerr</i> patches grow near your community. Show on the map the features that are important in helping people to find the patches. These could be sand plains, roads, creeks, water holes. You might be able to see the plants there now. You might remember where they were when you collected them in the past. The map can be made in three dimensions using rocks, rope, etc, or on a satellite image or written on paper. Add a distance scale to your map. Measure how far it is to the patches. Is this distance by road or is it in a straight line?
<b>Social</b>  In Alyawarr social systems of kinship, <i>Akatyerr</i> has skin names and other social roles.	What are the skin names in your area? Who do you know who is related to <i>Akatyerr</i> ? Do you know any 'Akatyerr people'? Is their relation to the plant by kinship, as a totem or by another connection?
<b>Ecology/food webs</b>	What animals eat <i>Akatyerr</i> ? What animals live on the plant? Look closely at the sand near <i>Akatyerr</i> plants. Notice the tracks of different animals. Sit and watch the flowers and fruits to see what insects visit. Make clay or plasticine models of these animals.

<b>Food preparation/ microscopic features</b>  Alyawarr people know when they rub the fruit these are being removed so the fruit is less bitter and more can be eaten.	Look at <i>Akatyerr</i> under a hand lens or microscope. Can you see the waxy surface and fine hairs? How might the wax and fine hairs help the plant survive? Compare how they look before and after rubbing in sand. Discuss why this preparation method might be important.
<b>Maths/mass/weight</b>	Collect lots of <i>Akatyerr</i> fruit. Fill up cups, billy cans, tin cans or plastic containers. Line up the containers from those with the most fruit to those with the least fruit. Weigh each container. Work out the total weight of fruit.
<b>Time/seasons</b>	On a calendar, mark when different bush foods ripen and can be collected. Can <i>Akatyerr</i> fruit be picked for days, weeks or months? Compare it to when <i>Anatye</i> (Bush potato) can be dug up. Is the season for <i>Akatyerr</i> longer or shorter?  Does it fruit every year, or only some years?
<b>Inter-relationships/systems science</b>	Keep working through the circle diagram (p. 54) . Look at and work on documenting the white circles. Identify how they inter-relate.

**For useful education references:**

Michael M. Anlezark J et al. 1998. Beyond bush tucker: implementing indigenous perspectives through the science curriculum. Published in Proceedings of the *Australian Science Teachers Conference*, pp. 101–110.

NTG. 1991. *Health is Life: A health Education Resource for Aboriginal Schools*. NT Department of Education, Darwin.

NTG. 1090. *Handbook for Aboriginal Bilingual Education in the Northern Territory*. NT Department of Education, Darwin.

ISN. 2009. *Indigenous Science Network*. Convenor: Michael Michie, Darwin, Australia. Retrieved July 2009, from <http://members.ozemail.com.au/~mmichie/network.html>.

<http://www.science.org.au/primaryconnections/plantsinaction.htm#resourcesheets>

<http://www.science.org.au/primaryconnections/resourcesheets/plants/PlantsInActionCurriculumLinks.pdf>

Tangentyere Landcare. 2007. *Land and Learning: A central Australian environmental education program for Aboriginal schools and others*. Tangentyere Council: Alice Springs. p. 128.

[www.schools.nt.edu.au/tlcland](http://www.schools.nt.edu.au/tlcland)

## Other Aboriginal knowledge concepts inter-related to Akatyerr (Desert raisin)

This report records a small amount of the knowledge that Alyawarr people know about Desert raisin. There are many other subjects associated with this plant, and many other plants in which Alyawarr people, especially older people, have expert knowledge and skills. Some of the subjects in this report are shown in yellow on this diagram. Other subjects which have not yet been recorded are also shown in white. Aboriginal people want others to recognise and respect the existence and inter-relation of these concepts and the multiple roles and values of plant species (see V. Dobson, F. Walsh and J. Douglas DVD 2008 and paper 2009).

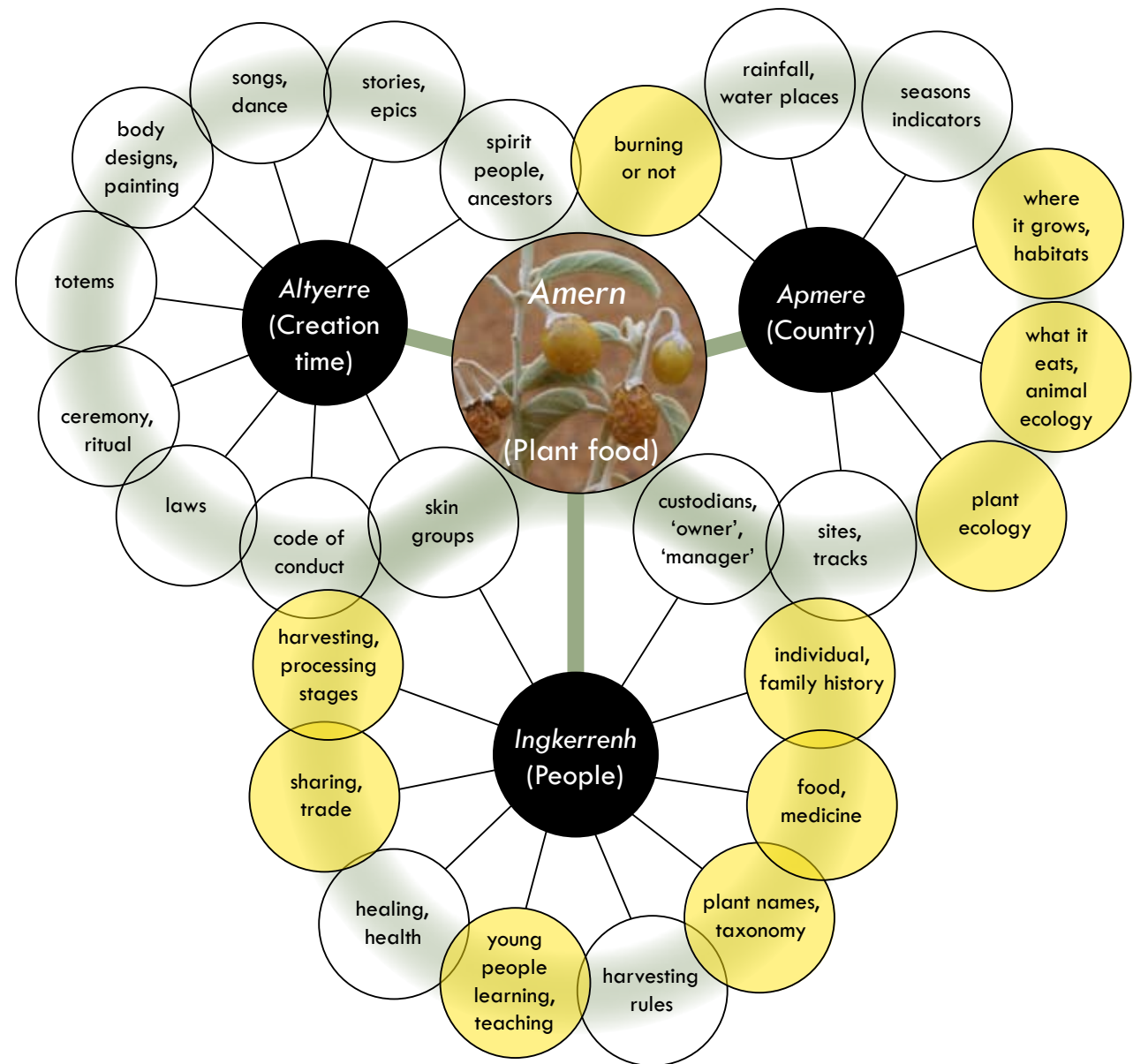


Diagram adapted from MK Turner poster 2005, Dobson, Walsh and Sati 2008 and Merne Altyerr-  
ipenhe Reference Group et al 2009

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## References

- Blackman D, Moore D and with members of the communities of Amperlatwatya (Ammaroo), Arnkawayerr, Atwengerrp, Ilperrelhelam (Lake Nash), Irrwelty, Mwengkart (McLaren Creek) and Wetenngerr (Epenarra). 2004. *Alyawarr Picture Dictionary*, IAD Press.
- Desert Knowledge CRC. 2009. *Along the value chain: information = power*, 15" DVD, Ampilatwatja women, Produced by Desert Knowledge CRC, Alice Springs.
- Devitt J. 1988. Contemporary Aboriginal women and subsistence in remote arid Australia, Ph.D Dissertation, School of Anthropology and Society, University of Queensland, Brisbane.
- Dobson Perurre V, Walsh, F, Merne Altyerr-ipenhe and Douglas J. *Anperrentye: Relationships between Bush foods, Creation Laws, People, Country and All things, illustrated by three plant species*, Desert Knowledge CRC. Available from: <http://www.desertknowledgecrc.com.au/publications/conferencepresentations.html> [16/12/08].
- Dobson Perrurle V, Walsh F and Sati W. 2008. *Anperrentye: Relationships between bush foods, creation laws, people, country and all things, illustrated by three plants*, Desert Knowledge CRC. DVD 13'22".
- Dobson Perrurle V, Walsh F and Douglas J. in prep. Arrernte values in landscapes and iconic plant species, for submission to *Ecology and Society* special edition on traditional knowledge and western science.
- Green J. 1992. *Alyawarr to English dictionary*, Institute for Aboriginal Development, Alice Springs.
- Green J, Moore D and Blackman D. in prep. *Alyawarr to English dictionary* 2nd edition, IAD Press, Alice Springs.
- Hoogenraad R and Thornley B. 2003, *Aboriginal languages of central Australia and the places where they are spoken*, Jukurrpa Books (IAD Press), Alice Springs.
- Holcombe S, Janke T and Davis M. 2009. *Indigenous ecological knowledge and natural resources in the Northern Territory*, Part 1 'Guidelines for indigenous ecological knowledge management', Part 3 'Report on the current status of indigenous intellectual property', National Centre for Indigenous Studies, ANU, Canberra, Terri Janke and Company Pty Ltd in collaboration with Jumbunna Indigenous House of Learning (Michael Davis), UTS. Commissioned by the Natural Resources Management Board (NT).
- Latz P. 1995. *Bushfires and bushtucker: Aboriginal plant use in central Australia*, IAD Press, Alice Springs.
- Laramba Women & Green J. 2003. *Anmatyerr Ayey Arnang-akert Anmatyerr Plant Stories*, IAD Press, Alice Springs.
- Merne Altyerr-ipenhe (Food from the Creation time) Reference Group, Douglas J and Walsh F. in prep., Protocols for people involved in commercial bush foods enterprises, research and development with plants, products or Aboriginal knowledge sourced from Central Australia, Desert Knowledge CRC, Alice Springs.
- Turner M. 2005. *Bush Foods: Arrernte Foods from Central Australia*, 2nd edition, 1st edition 1994, IAD Press, Alice Springs.
- Walsh F and Douglas J. 2008. Harvester-trader exchanges: a critical element of sustainable bush harvest to 2006. In Ryder M, Walsh F, Douglas J, Waycott M, Robson H, Singh Z, De Sousa Majer M, Collins T, White J and Cheers B. 2009. *Sustainable bush produce systems: Progress Report 2004–2006*, DKCRC Working Paper 31, Desert Knowledge CRC, Alice Springs: 13–49.
- Walsh F and Douglas J. in prep. Aboriginal harvesters who sell bush foods and seeds from central Australia for food and revegetation markets: their practices, priorities and opinions. Desert Knowledge CRC Report. Alice Springs.



**Kel!**

